

## Activity 6 on Docker Playground

03:37:36

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP: 192.168.0.8

OPEN PORT

Memory: 8.33% (333.3MiB / 3.906GiB)

CPU: 0.78%

SSH: ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
#####
# WARNING!!!!
# This is a sandbox environment. Using personal credentials
# is HIGHLY discouraged. Any consequences of doing so are
# completely the user's responsibilities.
#
# The FWD team.
#####
(node1) (local) root@192.168.0.8 ~
$ docker network

Usage: docker network COMMAND

Manage networks

Commands:
connect      Connect a container to a network
create       Create a network
disconnect   Disconnect a container from a network
inspect      Display detailed information on one or more networks
ls           List networks
prune        Remove all unused networks
rm           Remove one or more networks

Run 'docker network COMMAND --help' for more information on a command.
(node1) (local) root@192.168.0.8 ~
$ docker network ls
NETWORK_ID    NAME          DRIVER  SCOPE
91faab517574  bridge        bridge  local
29b023a9bcbd  host          host     local
```

03:37:29

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP: 192.168.0.8

OPEN PORT

Memory: 8.33% (333.3MiB / 3.906GiB)

CPU: 0.82%

SSH: ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
91faab517574  bridge        bridge  local
29b023a9bcbd  host          host     local
c03c15302632  none          null     local
(node1) (local) root@192.168.0.8 ~
$ docker network inspect bridge
[
  {
    "Name": "bridge",
    "Id": "91faab517574861c4805f5d76a4b6ad9b841adbbde6a7e8a58ba41c065174581",
    "Created": "2021-06-23T05:03:40.567653863",
    "Scope": "local",
    "Driver": "bridge",
    "EnableIPv6": false,
    "IPAM": {
      "Driver": "default",
      "Options": null,
      "Config": [
        {
          "Subnet": "172.17.0.0/16"
        }
      ]
    },
    "Internal": false,
    "Attachable": false,
    "Ingress": false,
    "ConfigFrom": {
      "Network": ""
    },
    "ConfigOnly": false,
    "Containers": {}
  }
]
```

Docker Playground

03:37:19

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP: 192.168.0.8 OPEN PORT

Memory: 8.33% (333.1MiB / 3.906GiB)

CPU: 0.84%

SSH: ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
[node1] (local) root@192.168.0.8 ~
$ docker info
Client:
Context: default
Debug Mode: false
Plugins:
  app: Docker App (Docker Inc., v0.9.1-beta3)
Server:
Containers: 0
Running: 0
Paused: 0
Stopped: 0
Images: 0
Server Version: 20.10.0
Storage Driver: overlay2
Backing Filesystem: xfs
Supports d_type: true
Native Overlay Diff: true
Logging Drivers: json-file
Cgroup Driver: cgroupfs
Cgroup Version: 1
Plugins:
  Volume: local
  Network: bridge host ipvlan macvlan null overlay
  Log: awslogs fluentd gcplogs gelf journald json-file local logentries splunk syslog
Swarm: inactive
Runtimes: io.containerd.runc.v2 io.containerd.runtime.v1.linux runc
Default Runtime: runc
```

Docker Playground

03:37:02

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP: 192.168.0.8 OPEN PORT

Memory: 8.33% (333.1MiB / 3.906GiB)

CPU: 0.74%

SSH: ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
[node1] (local) root@192.168.0.8 ~
$ docker network ls
NETWORK ID      NAME      DRIVER  SCOPE
91faeb517574    bridge   bridge  local
236023a9bcbd    host     host     local
c03c15302632    none     null     local
[node1] (local) root@192.168.0.8 ~
$ apk update
fetch http://dl-cdn.alpinelinux.org/alpine/v3.12/main/x86_64/APKINDEX.tar.gz
fetch http://dl-cdn.alpinelinux.org/alpine/v3.12/community/x86_64/APKINDEX.tar.gz
v3.12.7-87-g91c62532ae [http://dl-cdn.alpinelinux.org/alpine/v3.12/main]
v3.12.7-86-g64a4068d1d [http://dl-cdn.alpinelinux.org/alpine/v3.12/community]
OK: 12777 distinct packages available
[node1] (local) root@192.168.0.8 ~
$ apk add bridge
(1/1) Installing bridge (1.5-r4)
OK: 405 MiB in 152 packages
[node1] (local) root@192.168.0.8 ~
$ brctl show
bridge name      bridge id      STP enabled  interfaces
docker0          8000.0242120368cc  no          veth1
[node1] (local) root@192.168.0.8 ~
$ ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN qlen 1
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
2: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN
    link/ether 02:42:12:03:68:cc brd ff:ff:ff:ff:ff:ff
    inet 172.17.0.1/16 brd 172.17.255.255 scope global docker0
```

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CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.83%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
valid_lft forever preferred_lft forever
216334: eth1@if216335: <BROADCAST,MULTICAST,UP,LOWER_UP,M-DOWN> mtu 1500 qdisc noqueue state UP
    link/ether 02:42:ac:12:00:3b brd ff:ff:ff:ff:ff:ff
    inet 172.18.0.48/16 scope global eth1
        valid_lft forever preferred_lft forever
(node1) (local) root@192.168.0.8 ~
$ docker run -dt ubuntu sleep infinity
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
c549ccf8d472: Pull complete
Digest: sha256:aba80b77e2714d99c034a987e7dala287ed455390352663418cf2ed40417fe
Status: Downloaded newer image for ubuntu:latest
334195e7bbcd0f536d6755baf3b44565677de82faaf972d83ab9fd7aaf4e607
(node1) (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
334195e7bbcd        ubuntu             "sleep infinity"    7 seconds ago       Up 6 seconds       0.0.0.0:80->80/tcp   angry_yalow
(node1) (local) root@192.168.0.8 ~
$ brctl show
bash: brctl: command not found
(node1) (local) root@192.168.0.8 ~
$ brctl show
bridge name        bridge id          STP enabled        interfaces
docker0             8000,0242120368cc  no                  veth690habf
(node1) (local) root@192.168.0.8 ~
$ docker network inspect bridge
[
  {
    "Name": "bridge",
    "Id": "91faab517574861c4805f5d76a4b6ad9b841adbbde6a7e8a58ba41c065174581",
```

03:36:49

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.64%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
(node1) (local) root@192.168.0.8 ~
$ ping -c5 172.17.0.2
PING 172.17.0.2 (172.17.0.2): 56 data bytes
64 bytes from 172.17.0.2: seq=0 ttl=64 time=0.162 ms
64 bytes from 172.17.0.2: seq=1 ttl=64 time=0.066 ms
64 bytes from 172.17.0.2: seq=2 ttl=64 time=0.084 ms
64 bytes from 172.17.0.2: seq=3 ttl=64 time=0.081 ms
64 bytes from 172.17.0.2: seq=4 ttl=64 time=0.074 ms

--- 172.17.0.2 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.066/0.093/0.162 ms
(node1) (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
334195e7bbcd        ubuntu             "sleep infinity"    About a minute ago  Up About a minute  0.0.0.0:80->80/tcp   angry_yalow
(node1) (local) root@192.168.0.8 ~
$ docker exec -it 334195e7bbcd /bin/bash
root@334195e7bbcd:/# apt-get update && apt-get install -y iputils-ping
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:3 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [777 kB]
Get:4 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [368 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [27.6 kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [925 kB]
Get:7 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:8 http://archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]
Get:9 http://archive.ubuntu.com/ubuntu focal/restricted amd64 Packages [33.4 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/multiverse amd64 Packages [177 kB]
```

03:36:42

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
1.08%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
rtt min/avg/max/mdev = 1.072/1.205/1.448/0.127 ms
root@334195e7bbcd:/# exit
exit
(node1) (local) root@192.168.0.8 ~
$ docker stop 334195e7bbcd
334195e7bbcd
(node1) (local) root@192.168.0.8 ~
$ docker run --name web1 -d -p 8080:80 nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
b4d181a07f80: Pull complete
4ed81c9bc1f5: Pull complete
b21fed5599f: Pull complete
03e6a2452751: Pull complete
b82f7f888feb: Pull complete
5430e98eba64: Pull complete
Digest: sha256:47ae430dc7064d28800bc42e79a429540c7c8016e8c8952778c0d5af1c09db
Status: Downloaded newer image for nginx:latest
a8774780blad8212fe0a0a7706d66ad0c88619ac995d707b10b2baacc333a2f6b
(node1) (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS             PORTS               NAMES
a8774780blad        nginx              "/docker-entrypoint..." 6 seconds ago      Up 5 seconds      0.0.0.0:8080->80/tcp  web1
(node1) (local) root@192.168.0.8 ~
$ curl 127.0.0.1:8080
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<body>
```

03:36:42

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
1.08%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
rtt min/avg/max/mdev = 1.072/1.205/1.448/0.127 ms
root@334195e7bbcd:/# exit
exit
(node1) (local) root@192.168.0.8 ~
$ docker stop 334195e7bbcd
334195e7bbcd
(node1) (local) root@192.168.0.8 ~
$ docker run --name web1 -d -p 8080:80 nginx
Unable to find image 'nginx:latest' locally
latest: Pulling from library/nginx
b4d181a07f80: Pull complete
4ed81c9bc1f5: Pull complete
b21fed5599f: Pull complete
03e6a2452751: Pull complete
b82f7f888feb: Pull complete
5430e98eba64: Pull complete
Digest: sha256:47ae430dc7064d28800bc42e79a429540c7c8016e8c8952778c0d5af1c09db
Status: Downloaded newer image for nginx:latest
a8774780blad8212fe0a0a7706d66ad0c88619ac995d707b10b2baacc333a2f6b
(node1) (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND                  CREATED            STATUS             PORTS               NAMES
a8774780blad        nginx              "/docker-entrypoint..." 6 seconds ago      Up 5 seconds      0.0.0.0:8080->80/tcp  web1
(node1) (local) root@192.168.0.8 ~
$ curl 127.0.0.1:8080
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<body>
```

03:36:28

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.65%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
[node1] (local) root@192.168.0.8 ~
$ docker network create -d overlay overnet
1011sahuswhi9b4h9ctpo7j7
[node1] (local) root@192.168.0.8 ~
$ docker network ls
NETWORK ID      NAME                DRIVER  SCOPE
91faab517574    bridge              bridge   local
409f9b0e4473    docker_gwbridge     bridge   local
29b023a9cbcd    host                 host      local
21pxy6tvkmay    ingress             overlay   swarm
e03c15302632    none                 null      local
1011sahuswhi9b4h9ctpo7j7    overnet             overlay   swarm
[node1] (local) root@192.168.0.8 ~
$ docker network inspect overnet
[
  {
    "Name": "overnet",
    "Id": "1011sahuswhi9b4h9ctpo7j7",
    "Created": "2021-06-25T05:19:43.135212508Z",
    "Scope": "swarm",
    "Driver": "overlay",
    "EnableIPv6": false,
    "IPAM": {
      "Driver": "default",
      "Options": null,
      "Config": [
        {
          "Subnet": "10.0.1.0/24",
          "Gateway": "10.0.1.1"
        }
      ]
    }
  }
]
```

03:36:24

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.90%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
[node1] (local) root@192.168.0.8 ~
$ docker service create --name myservice --network overnet --replicas 2 ubuntu sleep infinity
to98zotlv6ej19z80nxsu8e3
overall progress: 2 out of 2 tasks
1/2: running  [=====>]
2/2: running  [=====>]
Verify: Service converged
[node1] (local) root@192.168.0.8 ~
$ docker service ls
ID                NAME                MODE                REPLICAS  IMAGE          PORTS
to98zotlv6ej19z80nxsu8e3    myservice            replicated          2/2        ubuntu:latest
[node1] (local) root@192.168.0.8 ~
$ docker service ps myservice
ID                NAME                IMAGE                NODE                DESIRED STATE  CURRENT STATE          ERROR          PORTS
f1ru6ty8bat1     myservice.1         ubuntu:latest        node1               Running         Running 23 seconds ago
8000kxkx0d51     myservice.2         ubuntu:latest        node1               Running         Running 23 seconds ago
[node1] (local) root@192.168.0.8 ~
$ docker network ls
NETWORK ID      NAME                DRIVER  SCOPE
91faab517574    bridge              bridge   local
409f9b0e4473    docker_gwbridge     bridge   local
29b023a9cbcd    host                 host      local
21pxy6tvkmay    ingress             overlay   swarm
e03c15302632    none                 null      local
1011sahuswhi9b4h9ctpo7j7    overnet             overlay   swarm
[node1] (local) root@192.168.0.8 ~
$
[node1] (local) root@192.168.0.8 ~
$ docker network inspect overnet
```

03:36:18

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.51%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
}
  }
}
(node1) (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS              NAMES
61d27274712        ubuntu:latest      "sleep infinity"    About a minute ago  Up About a minute               myservice.2.8d00rkttkd5lsshq12vwnkozo
9ee79b088c7a        ubuntu:latest      "sleep infinity"    About a minute ago  Up About a minute               myservice.1.firu6ty8bat1917h8e6eh18y
a877d780b1ad        nginx              "/docker-entrypoint..."  12 minutes ago      Up 12 minutes        0.0.0.0:8080->80/tcp   wmb1
(node1) (local) root@192.168.0.8 ~
$ docker exec -it 61d /bin/bash
bash: docker: command not found
(node1) (local) root@192.168.0.8 ~
$ docker exec -it 61d /bin/bash
root@61d27274712:/# apt-get update && apt-get install -y iputils-ping
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:2 http://archive.ubuntu.com/ubuntu focal InRelease [265 kB]
Get:3 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [925 kB]
Get:4 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages [368 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/multiverse amd64 Packages [27.6 kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages [777 kB]
Get:7 http://archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:8 http://archive.ubuntu.com/ubuntu focal-backports InRelease [101 kB]
Get:9 http://archive.ubuntu.com/ubuntu focal/main amd64 Packages [177 kB]
Get:10 http://archive.ubuntu.com/ubuntu focal/universe amd64 Packages [11.3 MB]
Get:11 http://archive.ubuntu.com/ubuntu focal/main amd64 Packages [1275 kB]
Get:12 http://archive.ubuntu.com/ubuntu focal/restricted amd64 Packages [33.4 kB]
Get:13 http://archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [1356 kB]
```

03:36:12

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.84%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETE EDITOR

```
hameserver 127.0.0.11
options ndots:0
root@61d27274712:/# ping -c5 myservice
PING myservice (10.0.1.2) 56(84) bytes of data:
64 bytes from 10.0.1.2 (10.0.1.2): icmp_seq=1 ttl=64 time=0.187 ms
64 bytes from 10.0.1.2 (10.0.1.2): icmp_seq=2 ttl=64 time=0.050 ms
64 bytes from 10.0.1.2 (10.0.1.2): icmp_seq=3 ttl=64 time=0.093 ms
64 bytes from 10.0.1.2 (10.0.1.2): icmp_seq=4 ttl=64 time=0.061 ms
64 bytes from 10.0.1.2 (10.0.1.2): icmp_seq=5 ttl=64 time=0.097 ms

--- myservice ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 3997ms
rtt min/avg/max/mdev = 0.068/0.099/0.187/0.046 ms
root@61d27274712:/# exit
exit
(node1) (local) root@192.168.0.8 ~
$ docker service inspect myservice
{
  "ID": "to98zotlv6ej19z80mxqr8c3",
  "Version": {
    "Index": 15
  },
  "CreatedAt": "2021-06-25T05:20:36.356476626Z",
  "UpdatedAt": "2021-06-25T05:20:36.358141438Z",
  "Spec": {
    "Name": "myservice",
    "Labels": {},
    "TaskTemplate": {
      "ContainerSpec": {
```

03:36:06

CLOSE SESSION

Instances

+ ADD NEW INSTANCE

192.168.0.8  
node1

c3am797n\_c3am7annjsv0008lb3qg

IP  
192.168.0.8  
OPEN PORT

Memory  
8.33% (333.1MiB / 3.906GiB)

CPU  
0.68%

SSH  
ssh ip172-18-0-48-c3am797njsv0008lb3q0@direct.labs.play-w

DELETEEDITOR

```
{
  "NetworkID": "1o1lsahuewkh19b4h9ctpo7j7",
  "Addr": "10.0.1.2/24"
}
}
}
]
[node1] (local) root@192.168.0.8 ~
$ docker service rm myservice
myservice
[node1] (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
61d27f2f74712  ubuntu:latest  "sleep infinity"        3 minutes ago  Up 3 minutes                               myservice.2.8d00rkttkd5lsshq12vwnkozo
9e079d88c7a    ubuntu:latest  "sleep infinity"        3 minutes ago  Up 3 minutes                               myservice.1.firu6ty8bat1917h8e6ehx18y
a8774780b1ad   nginx        "/docker-entrypoint..." 14 minutes ago  Up 14 minutes  0.0.0.0:8080->80/tcp               web1
[node1] (local) root@192.168.0.8 ~
$ docker kill 61d 9e0 a87
a87
Error response from daemon: Cannot kill container: 61d: No such container: 61d
Error response from daemon: Cannot kill container: 9e0: No such container: 9e0
[node1] (local) root@192.168.0.8 ~
$ docker ps
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS                               NAMES
[node1] (local) root@192.168.0.8 ~
$ docker swarm leave --force
Node left the swarm.
[node1] (local) root@192.168.0.8 ~
$
```

Type here to search

32°C Haze 1:27 pm 25/06/2021